

UNITED STATES PATENT OFFICE

2,685,220

SAXOPHONE

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Application November 24, 1950, Serial No. 197,216

4 Claims. (Cl. 84—385)

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This invention relates to wood-wind musical instruments and more particularly to improvements and structural refinements of the tampion actuating mechanism of a saxophone operated by the little finger of the left hand.

Heretofore, saxophones due to their inherent structural limitations and variations presented many objectionable features from the standpoint of the musician. For example, the mechanism serving to transfer motion from the keys operated by the little finger of the left hand to the tampions controlling the tone holes in the lower register embodied an excessive number of moving parts having considerable lost motion therebetween resulting in undesirable noise due to such lost motion and a sluggishness in the reaction of the tampions to the movement of the operating keys. Furthermore, prior saxophones were open to the objection that there was considerable variation in the amount of force and pressure angles required by the little finger thereby mitigating against smooth manipulation of the operating keys of the instrument.

It is among the objects of the present invention to provide a saxophone which overcomes the foregoing undesirable features and drawbacks of prior instruments and which readily lends itself to smooth and evenly balanced operation which is capable of rapid manipulation.

Another object of the present invention is to provide a saxophone wherein the tampions controlling the tone-holes in the lower register are located on one side of the bell with the finger actuating keys therefor positioned on the remote side and the operating mechanism therebetween consisting of a minimum number of moving parts.

A further object of the present invention is to provide in a saxophone, tampion operating mechanism positioned between keys actuated by the little finger of the left hand and tampions positioned on the opposite side of the bell, which translates motion therebetween with a minimum change in direction.

A still further object of the invention is to provide in a saxophone construction a key arrangement wherein greater leverage may be obtained resulting in greater ease and speed of operation of the instrument.

Another object of the invention is to provide in a saxophone structure tampion operating mechanism embodying fewer moving parts confined to a minimum of space and whereby motion is translated between the actuating keys and the tampions covering the tone-holes of the lower register of the instrument in such a manner as to

obtain uniform response to movement of all the keys.

These and other objects and advantageous features of the invention not at this time more particularly pointed out will become more apparent as the nature of the invention is better understood from the following detailed description taken in conjunction with the accompanying drawings, wherein like reference characters denote corresponding parts and wherein:

Figure 1 is a fragmentary side elevational view of a saxophone embodying the improvements of the present invention, numerous details of the instrument not required to illustrate the present invention being omitted,

Figure 2 is a fragmentary front elevational view illustrating the body of the saxophone rotated into position to best show the tampion operating mechanism for the tone-holes in the lower register to which this invention is applicable,

Figure 3 is a developed view of the structure shown in Figure 2,

Figures 4 to 8 inclusive are sectional views taken on the lines 4—4, 5—5, 6—6, 7—7 and 8—8, respectively, of Figure 3, illustrating the mechanism with relation to the body and bell portion of the saxophone.

In the drawings many of the parts of the saxophone have been omitted in order to more clearly illustrate the novel features of the present invention. It is, therefore, to be understood that the following description is to be considered as relating to a saxophone having all the necessary parts including such parts and mechanism as are well known in the art and the novel parts in the mechanism disclosed herein whereby an instrument of the improved construction herein contemplated is provided.

With reference to the accompanying drawings, there is illustrated a saxophone constructed in accordance with the teachings of the present invention and embodying a bell 10, a U-shaped tubular member or bow 11 and a tubular body 12. The bell 10 is provided, in the usual manner, with tone-holes 13 and 14 for producing the Bb and B natural notes, respectively, and tone-hole 15 is provided in the bow 11 for producing the C# note. The tone-holes 13, 14 and 15 are controlled by valve members or tampions 16, 17 and 18, respectively. The actuating mechanism for the tampions 16, 17 and 18 is mounted on the front of the tubular body 12, as best illustrated in Figures 2 and 3, and includes a plurality of longitudinally extending rods arranged to occupy the minimum of lateral space, one end of each of